Effective Healthy Weight Strategies for Child Care Settings

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Early years are a critical developmental period
More than 60% of US children are in some kind of out-of-home care arrangement
These arrangements are best referred to as:
  • “Early care and education” or ECE
  • May be centers, family homes, Head Start, PreK
ECE may be a “missed opportunity” for obesity prevention (Story et al., Future of Children, 2006)
Outcomes may be healthy weight, diet, PA

Note: Most research has focused on centers or Head Start; little information on family CC or infant/toddler care
Levels of Influence


Multi-Level Opportunities to Promote Healthy Practices
Public Policy Level

1. Regulatory requirements (e.g., state or municipal licensing)
2. Diet and/or activity standards included in quality rating & improvement system (QIRS)
3. Funding and finance (funding tied to enhanced standards)
4. Early learning standards (e.g., requirements for what is taught in ECE)

- NYC Policy. Kakietek et al., and Stephens et al., Preventing Chronic Disease, 2014
Organizational Level

1. Improving overall policies and practices at the facility level*
   - Foods/beverages served
   - Amount of physical activity provided
   - Limiting sedentary time
     - Screen use
     - Time sedentary

2. Obtaining external ECE certification or rating**

*Bonis et al., Childhood Obesity, 2014
*Alcon et al. BMC Public Health, 2014
*Natale et al., Health Prom Prac, 2014
*Finch et al., IJBNPA, 2012
*Drummond et al., Health Promot Prac, 2009
**Dowda, Pate, Pediatrics, 2009
Organizational Level*

3. Using standard curricula approach to increase healthy eating and/or physical activity

*Promising
Organizational Level

4. Providing structured PA lessons
   • Increases overall PA and/or fundamental motor skills
   • More consistent outcomes with experts than with existing teachers

5. Training and technical assistance (TA) contributes to teachers’ ability to provide PA lessons

Annesi et al., 2013; Alhassan et al., 2012; Fitzgibbon et al., 2011; Trost et al., 2008; Parish et al., 2007; Reilly et al., 2006; Binkley & Specker, 2004
Organizational Level*

6. Improvements in quality of outdoor play environment
   - Including open areas, looping cycle pathways, grass hill
   - Providing portable play equipment associated with increase in children’s PA
   - More space per child (playground density)

Smith et al., Am J Health Prom., 2014
Nicaise et al., Ped Exerc Sci., 2012;
Cosco et al., MSSE, 2010;

*Promising
Organizational Level*

- Other PA modifications with potential
  - Providing more vigorous activity (VPA) (Collings et al. Am J Clin Nutr, 2013)
  - Reduce sedentary time (e.g., no chairs at some tables; regular breaks from sitting)
  - Energizers during lessons (activity breaks)
  - Activity embedded within Circle Time, centers, transitions

*Gaps
Organizational Level*

- Other eating-related modifications with potential
  - Offering fruit or veggie prior to main offering
  - Offering regular food tasting, cooking
  - Creating a garden at the ECE program (planting, tasting, eating)
  - Firm policies on foods brought from home/celebrations
  - Use of family-style dining

*Gaps

For review of healthy eating strategies in ECE: see: Mikkelsen et al., 2014, Nutr J & Ward et al., 2015
Interpersonal
Interpersonal Level: staff *

Healthy Eating

• Role modeling
• Praising
• Providing informal education
• Prompting
• Use of responsive feeding practices (fullness, hunger)
• Not using food as treat or bribe

*Promising & gap
Interpersonal Level: staff *

Regular Physical Activity

• Role modeling
• Praising
• Providing informal education
• Prompting
• Joining in activity
• Not withholding PA
• Not using PA to punish

*Gap
Interpersonal Level: parents*

Parent Engagement:

• Importance of parent support cannot be overlooked
• Meaningful engagement results in better outcome
• Needs to be more than passive (e.g., just sending materials home)
• Examples include:
  • Hip Hop to Health, Jr. (Fitzgibbon et al., 2010)
  • Healthy Caregivers-Healthy Children (HC2) (Natale et al., 2014)

*Promising
Interpersonal Level: staff health*

- Most ECE staff are considered low-income wage earners
- Although few studies exist on ECE staff health, data show poor health status, including obesity, poor diets, inactivity, stress, sleep irregularities, smoking, and other negative health outcomes
- Being asked to serve as role models, leaders, and educators
- Unclear impact of their health behaviors/health status on child behavior

*Gap
Multi-Level Approaches Needed

- Efforts are needed at multiple levels
- Opportunities exist at each level of SEM
- Interventions that target multiple levels may be more successful
Hip Hop for Health, Jr.  
(Fitzgibbons et al., 2005, 2010)

- Head Start Centers (n=12 AA; 12 Latino)
- RCT
- 20 min healthy eating; 20 min PA; parent component
- 2-3 sessions per wk. for 14 wks.
- Nutrition experts (efficacy study) and teachers (effectiveness study) implemented

Efficacy results: ↓ BMI-Z*  
Effectiveness results: ↑ MVPA

(*NS results in Latino centers (efficacy study))
Successes

- Public policy efforts
- Organizational level interventions to change nutrition/PA environments
- Regular physical activity lessons by trained personnel to increase PA and motor skills
- Use of nutrition (promising) and PA curricula in structured program offerings
- Training & TA support to teachers/staff to improve practice
Research Gaps

- Family child care homes
- Infant/toddler programs (centers & homes)
- Role of VPA on children’s weight trajectory
- Impact of limited physical space indoors (most) and outdoors (urban settings) on children’s PA
- Role of teachers in developing healthy feeding and activity practices
- How does child care staffs’ health (positively or negatively) affect children’s behaviors
- Engaging parents and how ECE staff influence parent behavior
Opportunities

• Partnering between ECE (licensing, standards, professional organizations) and public health professionals
• Creating and distributing training opportunities in healthy eating/activity for ECE teachers
• Develop partnerships with parents to support ECE
• Comprehensive wellness programs children, ECE staff & families